

dulation the more limited will be its extent, and *vice versâ*; yet this structure does not always present the same figure.

The *natural surface* of *Stromatopora concentrica* from the Devonian Limestone is represented in fig. 19, and that from the Silurian formation (which Mr. Sollas lent me) in fig. 24 ('Annals,' 1877, vol. xix. pl. viii.), where the pores (? calicles) are not only larger, but, to the best of my remembrance, the main structure of the corallum in the Silurian specimen was like that of *Caunopora*, that is, like that of *Millepora alcicornis*. The *natural surface* of *Caunopora* is represented in fig. 20, pl. viii. (*l. c.*).

It must not, however, be inferred, because I have considered this hexactinellid structure "identical in appearance" with that of Zittel's suborder Dictyonina ('Annals,' 1877, vol. xx. p. 416), that *elementarily* it is so; for in this consists the difference between the hexactinellid structure of *Stromatopora concentrica* and its varieties and that of the vitreous sponges with *octahedral elements* ('Annals,' 1877, vol. xix. pl. ix. figs. 11, 12).

The pores (? calicles) are in the interstices of the hexactinellid structure; but I cannot say more about them than that, by their minuteness in *S. concentrica*, they appear to have belonged to a Hydroid, rather than to an Actinozoic polyp.

XI.—*Descriptions of three Species of Doryphora from Peru and the Amazons.* By J. S. BALY, F.L.S.

Doryphora modesta.

D. rotundato-ovata, valde convexa, pallide picea, subtus nitida, supra subopaca, antennis fulvis, capite thoraceque pallide castaneis, minute punctatis, facie inter oculos flava; elytris tenuissime punctato-striatis, striis confuse gemellatis, sordide fulvis, olivaceo tinctis, margine basali, limbo inflexo lineisque suturali et laterali angustis (his pone medium fere deletis) piceis.

Long. $5\frac{1}{2}$ lin.

Hab. Amazons, Santarem.

Face between the eyes broad, plane, minutely granulose, sparingly impressed with fine punctures; median space with a slender, very slightly raised, longitudinal line; jaws coarsely punctured; antennæ longer than the head and thorax, pale

fulvous. Thorax nearly three times as broad as long; sides nearly straight and slightly converging from the base to beyond the middle, rounded in front, the anterior angles mucronate; upper surface slightly excavated on either side, minutely but not closely punctured, the interspaces finely granulose. Scutellum nitidous, obscure fulvous, narrowly edged with piceous. Elytra broader than the thorax, very minutely punctured, the punctures irregularly arranged in double longitudinal rows; interspaces finely granulose, obscure fulvous, the basal margin, together with the anterior halves of the lateral and sutural limbs, narrowly edged with piceous.

Doryphora Waterhousei.

D. oblongo-ovata, convexa, læte cuprea, nitida, subtus obscure viridicuprea aut ænea, pedibus antennisque viridi-metallicis, his extrorsum nigris; thorace parce tenuiter punctato, lateribus latis, leviter incrassatis; elytris tenuiter punctato-striatis, striis geminatis, ad latus magis confusis.

Long. $6\frac{1}{2}$ lin.

Hab. Amazons, Santarem.

Lower face impressed with an elongate fovea, on either side of which are several irregular punctures; antennæ less than half the length of the body, five lower joints bright metallic green, the six outer ones black. Thorax as broad as the elytra; sides rounded, converging in front, the anterior angles acute, submucronate; disk finely but sparingly punctured, lateral margin broad, distinctly thickened, bounded within by a longitudinal sulcation. Scutellum trigonate. Elytra finely punctate-striate, the striæ gemellate, the punctures much less regularly placed in the striæ on the outer disk.

Doryphora Chapuisi.

D. late ovata, convexa, cæruleo-metallica, subtus nitida, supra subopaca, thorace fere duplo latiore quam longiore, lateribus parallelis, ad apicem rotundato-angustatis, angulis anticis mucronatis; disco fere impunctato; elytris thorace latioribus, tenuissime punctato-striatis, interspatiis punctis minutis sparse impressis; mesostethio acuto, metasterno vix longiore.

Long. 6 lin.

Hab. Peru.

Broader than *D. prasina*, Erichs., much more finely punctured. Antennæ four fifths the length of the body; five lower joints nitidous, tinged with metallic green, the six upper ones opaque, obscure cæruleous.